

What is claimed is:

1. An apparatus for determining a color conversion characteristic, the apparatus comprising:

an image display unit for displaying converted image data;

a holding unit for storing a conversion characteristic; and

a color conversion unit for performing color conversion on input image data based on the conversion characteristic stored in the holding unit, and for outputting the converted image data to the image display unit,

wherein the color conversion unit selects a color conversion candidate,

wherein the color conversion unit calculates predicted tristimulus values based on predicted color data,

wherein the color conversion unit evaluates the predicted tristimulus values based on measured tristimulus values and the selected color conversion candidate, and

wherein the color conversion unit determines, on the basis of the evaluation of the predicted tristimulus values, whether or not the color conversion candidate that was selected is stored in the holding unit as the conversion characteristic.

2. The apparatus according to claim 1, further comprising an input image data processing unit for performing tone correction on the input image data.

3. The apparatus according to claim 1, wherein the input image data is formed of three color data.

4. The apparatus according to claim 3, wherein the three color data includes red, green, and blue.

5. The apparatus according to claim 1, wherein the color conversion unit utilizes a look-up table for performing the color conversion of the input image data.

6. The apparatus according to claim 1, wherein the color conversion unit utilizes a matrix calculator for performing the color conversion of the input image data.

7. The apparatus according to claim 6, wherein coefficients forming coefficient matrixes for the matrix calculator are changed in determining the color conversion characteristic.

8. The apparatus according to claim 1, wherein the color conversion candidate is selected on the basis of a previously determined color conversion characteristic or on the basis of a standard color conversion characteristic.

9. The apparatus according to claim 1, wherein the predicted color data are calculated based on the color conversion candidate and generated sets of input image data.

10. The apparatus according to claim 1, wherein the predicted tristimulus values are calculated on the further basis of predicted image display data.

11. The apparatus according to claim 1, wherein the measured tristimulus values have been measured previously or are current measured tristimulus values, depending on whether or not the image display device has been altered.

12. The apparatus according to claim 1, wherein the evaluation of the predicted tristimulus values is performed by calculating target tristimulus values on the basis of generated input image data, calculating color differences between the target tristimulus values and predicted tristimulus values, and comparing the color differences to reference values.

13. The apparatus according to claim 1, wherein the color conversion candidate that was selected is modified on the basis of the determination of the evaluation of the predicted tristimulus values.